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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/989,940 | 11/21/2001 | Vladimir Pavlovic | 23390-000103 | 1545 |

30593 7590 06/17/2003

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EXAMINER

LUK, LAWRENCE W

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2838

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,940

Applicant(s)

PAVLOVIC ET AL.

Examiner

Lawrence Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 18, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,11 and 12 is/are rejected.
- 7) ☒ Claim(s) 3-10 and 13-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Heavey (5,307,001).

In regard to claims 1 and 11, Heavey discloses the elements and method as claimed. Specifically, Heavey shows an apparatus for charging a rechargeable lead-acid battery, said apparatus comprising: generator means for generating a charging current for charging the battery, and an overcharge current increment to be added to the charging current to yield an overcharge current; and, controller means for controlling said generator means, said controller means including (a) feedback means for determining at least one of a charge acceptance ability and a state of charge of the rechargeable lead-acid battery during recharging (refer to col.17, lines 11-37); (b) overcharge instruction means for determining the overcharge current, the overcharge current exceeding the charge acceptance ability of the battery (refer to col.17, lines 15-22); and (c) current control means for controlling the generator to supply the charging current and the overcharge current increment, the current control means being operable to deliver the overcharge current to the battery during charging (refer to col.17, lines 23-37).

In regard to claims 2 and 12, Heavey shows the overcharge instruction means is operable to determine an overcharge duration and an overcharge time; and, the current control means is

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operable to deliver the overcharge current to the battery for the overcharge duration at the overcharge time (refer to col.17, lines 15-22).

Allowable Subject Matter

3. Claims 3-10 and 13-20 are objected to as being dependent upon a rejected base claim. The prior art of record fails to teach or reasonably suggest that: Claims 3 and 13, the overcharge time is determined to be after the state of charge of the lead-acid battery reaches 60%; Claims 4 and 14, the overcharge duration is between a half minute and five minutes, and the overcharge current exceeds the charge acceptance ability of the lead-acid battery by less than one fifth of the battery capacity and by more than one twentieth of the battery capacity; Claims 5 and 15, the overcharge instruction means determines a plurality of overcharge times, an associated overcharge current for each overcharge time, and an associated overcharge duration for each overcharge time; the associated overcharge duration for each overcharge time being between a half minute and five minutes; and, the associated overcharge current for each overcharge time exceeds the charge acceptance ability of the lead-acid battery at the overcharge time by less than one fifth of the battery capacity and by more than one twentieth of the battery capacity. Claims 3-5 and 13-15 would be allowable if rewritten in independent from including all of the limitations of the base claim.

Claims 6-10 and 16-20 are allowed due to their dependency on claims 5 and 15.

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Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Luk whose telephone number is (703)305-0617. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (703) 308-1680. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-7724 for regular communications and (703)305-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.

LWL
June 6, 2003

Lawrence Luk
examiner
6/6/03